

memorandum

DATE: December 7, 1998

REPLY TO:

ATTN OF: Office of Environmental Policy and Assistance:Fortune:67302

SUBJECT:

LDR Phase IV Effective Date/State Authority Issues

TO:

Distribution

The following information is provided to our Web site users for informational purposes. This is not "official" DOE guidance.

Following the publication of the second major component of the Land Disposal Restrictions (LDR) Phase IV final rule (May 26, 1998; [63 FR 28556](#)), DOE field organizations ran into several questions relating to the actual effective dates for treatment standards promulgated by the rule. These issues primarily stem from preamble language regarding the final rule's effect on State authorization, and the status of LDR program authorization in particular States. In an attempt to clearly outline the specific DOE issues and to identify questions that would benefit from EPA clarification, EH-413 prepared working drafts" of two issue papers. These working drafts are included in this document.

During discussions with EPA, Agency representatives indicated that a number of calls on this topic had been received, and that EPA was trying to identify the specific issues (i.e., that EPA/HQ could attempt to resolve) and intended to address these issues in an internal EPA guidance/policy memorandum. On August 25, 1998, EH-413 provided copies of the "working draft" issue papers (addressing the primary issues/questions raised by DOE elements) to the EPA/OSW Waste Treatment Branch, on an informal basis, for their information and consideration.

EPA recently issued clarification relative to the effective dates of the LDR Phase IV final rule in a memorandum (dated October 19, 1998) from the EPA Office of Solid Waste to RCRA Senior Policy Advisors at the EPA Regional Offices. A copy of the EPA clarification memorandum is also provided in this document.

Land Disposal Restrictions (LDR) Phase IV Final Rule

Second Major Component [May 26, 1998; 63 FR 28556]

Implementation Issue/Concern: Clarification would be useful in regard to [1] the latitude given to States relative to their discretion in the implementation of the new LDR Phase IV requirements, [2] the interrelationship of previously established LDR standards that are pertinent to the LDR Phase IV requirements (specifically, the Third Third LDR final rule and the LDR Phase II final rule), and their effect on State authorization and implementation, and [3] when the new LDR Phase IV requirements will actually become effective in particular States. Also, clarification would be useful regarding the applicability of the Third Third treatment standards to radioactive waste mixed with metal characteristic waste (D004 - D011) during the period of a capacity variance (either national or case-by-case).

Background:

State Authority (in general)

- o Prior to the Hazardous and Solid Waste Amendments of 1984 (HSWA):
 - States with final authorization administer their own hazardous waste program (in lieu of EPA administering the Federal program in that State).
 - When *new, more stringent* Federal requirements were promulgated, the State was obliged to enact equivalent authority within specified time frames.
- o Requirements imposed under HSWA:
 - EPA issues HSWA provisions in annual “clusters” and States may apply for one or more of the available HSWA provisions prior to the cluster deadlines (51 FR 33715; September 22, 1986).
 - EPA may authorize State hazardous waste programs which are substantially equivalent to Federal regulations issued under HSWA for all or a particular HSWA requirement (57 FR 60130; December 18, 1992).
 - *More Stringent Regulations:* New requirements take effect immediately (i.e., they are self-implementing provisions)
 - EPA implements the more stringent requirements until the State is granted either interim or final HSWA authorization.
 - Authorized States are required to modify their programs only when EPA promulgates Federal requirements that are more stringent or broader in scope than existing Federal requirements.
 - States can impose standards more stringent than those in the Federal program.
 - *Less Stringent Regulations:* Although EPA encourages them to do so, States can, but are not required to, adopt Federal regulations that are considered less stringent; less-stringent regulations do not take effect in

Prepared by DOE, EH-413

Working Draft: August 25, 1998, 10:47 am

authorized States until those States adopt them and receive EPA authorization to implement them.

Pertinent LDR Regulatory Background

- o The *First Third LDR final rule* [53 FR 31138; August 17, 1988]:
 - EPA established that waste-specific prohibitions and treatment standards take precedence over California List prohibitions; however, during the period of a capacity variance (either national or case-by-case), the California List prohibitions continue to apply (53 FR 31188).
- o The *Third Third LDR final rule* [55 FR 22520; June 1, 1990]:
 - EPA promulgated final concentration/technology-based standards for hazardous wastes that are toxicity characteristic (TC) metals because they fail the Toxicity Characteristic Leaching Procedure (TCLP) and also exhibit the characteristic of toxicity using the extraction procedure (EP).
 - Reiterated EPA First Third rule policy that during the period of a capacity variance (either national or case-by-case), the California List prohibitions continue to apply. “[G]iven the fact that these wastes have been restricted since July 8, 1987, it is illogical that the Agency would grant these wastes a capacity extension . . .” (55 FR 22674)
 - NOTE: As of March 31, 1998, the HSWA provisions of the Third Third final rule have been adopted by 41 States, and 29 States have obtained authorization.
- o The *LDR Phase II final rule* [59 FR 47982; September 19, 1994]:
 - Consolidated concentration-based and technology-based treatment standards (previously found in three different sections) into one master table [40 CFR 268.40, table “Treatment Standards for Hazardous Wastes”]
 - Reissued treatment standards for characteristic metal wastes (EPA Hazardous Waste Numbers D004-D011) that mirrored those promulgated in the Third Third final rule.
 - Broadened (i.e., extended) the requirement that underlying hazardous constituents (UHCs) “reasonably expected to be present” be treated to meet universal treatment standards (UTS) to include TC pesticide wastes (regardless of whether they also exhibited the characteristic of toxicity based on the EP) and TC organic wastes.
 - Wastes that exhibited the characteristic of toxicity for metals based on both the TCLP and the EP remained subject to Third Third treatment standards and therefore, were not required to meet UTS for UHCs; newly identified

TC metal wastes (i.e., wastes that failed the TCLP but did not fail the EP) were not subjected to the LDR program.

- Clarified Agency policy that (1) new treatment standards (i.e., UTS) appearing in the consolidated table (“Treatment Standards for Hazardous Wastes”) were neither more or less stringent than previous standards, and (2) new treatment standards do not supersede existing treatment standards for which a State has received authorization until that State incorporates them into their law/code [60 FR 243, January 3, 1995, and December 19, 1994 memorandum (M. Shapiro to EPA Regional Waste Management Division Directors)].
- NOTE: As of March 31, 1998, Phase II UTS and treatment standards have been adopted by 26 States; however, only 7 States have obtained HSWA authorization.

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- o Issued new LDR treatment standards for hazardous wastes that are identified as hazardous by the TCLP but not the EP, provided that they were not specifically subcategorized and assigned a technology-based treatment standard in the Third Third [e.g., HL VIT (vitrification of high-level radioactive waste) for radioactive high-level wastes generated during the reprocessing of fuel rods mixed with characteristic metal wastes].
- o *More Stringent Regulations:* New LDR treatment standards for most of the TC metals (i.e., D004-D011) (except for arsenic and selenium nonwastewaters) that require underlying hazardous constituents (UHCs) "reasonably expected to be present" in a TC metal waste to be treated to meet UTS.
- o *Less Stringent Regulations:* Alternative LDR treatment standards for contaminated soil.
- o *Neither More or Less Stringent:* Revisions to the existing UTS numbers.
 - EPA explains that it “will not implement [the Phase IV] amendments to the UTS in those States with authorization for treatment standards” [i.e., States with final or interim authorization for all or relevant portions of the LDR program would continue to implement the treatment standards for those hazardous waste streams for which they are authorized].
 - Revised UTS do not apply in an authorized State until the State has incorporated them into its codified requirements.

Discussion:

In discussing the effect of Phase IV on States (63 FR 28634, col. 3), EPA notes that “new LDR *treatment standards* for *metal-bearing* wastes . . . would take effect in all States, regardless of authorization status.” (emphasis added). Continuing in the last sentence of paragraph two on page 28635, column two, the Agency explains “EPA will not implement today’s amendments to the UTS in those States with authorization for the *treatment standards*.”

These Statements raise two issues. First, it appears that EPA inadvertently inserted the phrase “metal-bearing wastes” rather than “TC metals” into the first sentence cited above. Although it is recognized that EPA has indeed issued “new LDR treatment standards for metal-bearing wastes” in the May 26, 1998 notice, UTS for metal-bearing wastes (e.g., F006) appear to be the standards to which EPA is referring when it discusses “revisions to the existing UTS numbers” that are neither more or less stringent than existing Federal requirements (see page 28635, column two, paragraph two).

The second and perhaps more significant issue raised by these two sentences is the perception that they appear contradictory. This contradiction seems to stem from EPA’s historical and continued interchangeable use of the terms “Universal Treatment Standards” (or “UTS”) and “treatment standards.” For example, in the January 3, 1995 Federal Register (60 FR 242), the Agency clarified the relationship between the UTS promulgated in the Phase II final rule (59 FR 47980, September 19, 1994) and State authority. In that notice, EPA states that “In most cases *UTS* are the same level as the previous LDR *treatment standards*. . . . Therefore the changes to the *treatment standards* should not be viewed as more or less stringent.” (emphasis added). The more recent interchangeable use (as cited in the first Discussion paragraph above) appears in the Phase IV final rule [May 26, 1998 Federal Register (63 FR 28635, col. 2)]. In this preamble discussion, the Agency clarifies “EPA will not implement today’s amendments to the *UTS* in those States with authorization for the *treatment standards*.” (emphasis added).

Issues Requiring EPA Clarification / Questions:

May 1998 LDR Phase IV / Effect on State Authorization. DOE requests that EPA provide clarification regarding which LDR Phase IV treatment standards should be viewed as more stringent, as well as the interrelationship between: (1) the previously established treatment standards for D004 - D011 issued in the Third Third final rule and recodified in the LDR Phase II final rule, (2) the more stringent Phase IV treatment standards for TC metals, and (3) the effect of these treatment standards in States that have HSWA authorization to implement the Third Third and/or Phase II but have not yet received authorization for Phase IV provisions.

- o Applicability of LDR Treatment Standards and UTS to UHCs
 - In the above-mentioned preamble discussions, did EPA inadvertently supplant the term “TC metals” with “metal-bearing wastes” ?
 - Although it appears to contradict RCRA 3004(m) obligations,¹ after August 24, 1998, if a TC metal that is destined for land disposal is treated (in accordance with an authorized State’s codified requirements) to meet the applicable, concentration-based, “treatment standards” that were issued for D004-D011 wastes in the Third Third (and carried through in the Phase II notice) only, has that waste been treated to fulfill existing LDR obligations?
 - If treatment to Third Third treatment standards alone does not fulfill LDR obligations, after August 24, 1998, must a TC metal waste being managed and destined for land disposal in an authorized State meet:
 - a) the D004-D011 treatment standard(s) issued in the Third Third (appearing in an authorized State’s equivalent of 40 CFR 268.41/268.43 or 40 CFR 268.40, table “Treatment Standards for Hazardous Wastes”) and UTS for any UHCs (appearing in 40 CFR 268.48) reasonably expected to be present before it is viewed as no longer prohibited from land disposal?
 - b) the Phase IV-issued concentration-based treatment standards for D004-D011 wastes (regardless of whether the Third Third/Phase II treatment standards are codified in an authorized State’s regulations) including UTS for any UHCs prior to land disposal?
- o Effective Dates for Phase IV Treatment Standards and UTS for UHCs
 - Although EPA issued new treatment standards for TC metals in Phase IV, do the D004 - D011 concentration-based treatment standard(s) issued in the Third Third (regardless of whether they are codified in a State equivalent of 40 CFR 268.41/268.43 or 40 CFR 268.40, table “Treatment Standards for Hazardous Wastes”) remain in effect in States with HSWA authorization for either the Third Third and/or Phase II until individual States adopt the Phase IV provisions?
 - If the Third Third treatment standards remain in effect, does the requirement to meet UTS for any UHCs reasonably expected to be present

¹ The September 25, 1992 U.S. Court of Appeals decision in *Chemical Waste Management v. EPA*, 976 F.2d (D.C. Cir 1992) clarified that RCRA 3004(m), among other things, obligates EPA to establish LDR treatment standards that address both short-term and long-term potential threats to human health and the environment, which compelled EPA to establish treatment standards that address underlying hazardous constituents.

become effective on August 24, 1998, because it is more stringent or “broader-in-scope” than the existing Third Third treatment standards?

Radioactive Waste Mixed With EPA Hazardous Waste Numbers D004 - D011

To avoid any potential confusion, DOE suggests that EPA explicitly clarify the applicability of previously established Third Third treatment standards to radioactive wastes that are mixed with D004 - D011 hazardous waste.

- o During the period of a national capacity variance under 40 CFR 268.38(b) (i.e., until May 26, 2000), does radioactive waste mixed with EPA Hazardous Waste Numbers D004 - D011 that are identified as hazardous because they fail the TCLP and also exhibit the characteristic of toxicity based on the EP remain subject to the Third Third treatment standards (as recodified under Phase II) for D004 - D011 wastes?
- o During the period of a national capacity variance, are radioactive wastes mixed with EPA Hazardous Waste Numbers D004 - D011 that are newly identified (wastes, soil, or debris identified as hazardous by the TCLP but not the EP) subject to the Third Third treatment standards for D004 - D011?

Land Disposal Restrictions (LDR) Phase IV Final Rule

Second Major Component [May 26, 1998; 63 FR 28556]

Implementation Issue/Concern: Clarification would be useful in regard to the use of the Phase IV alternative treatment standards for contaminated soil as applicable or relevant and appropriate requirements (ARARs) in States that are authorized for either the Third Third LDR final rule and/or the LDR Phase II final rule, and whether these States have any latitude relative to their discretion in the implementing the new LDR Phase IV alternative treatment standards for contaminated soil prior to adopting the new provisions.

Background:

Response Actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- o Section 121(d)(2) of the CERCLA, as amended by the 1986 Superfund Amendments and Reauthorization Act (SARA), requires that on-site remedial actions must attain (or waive) Federal and more stringent State ARARs of environmental laws upon completion of the remedial action.
- o The National Oil and Hazardous Substances Pollution Contingency Plan of 1990 (NCP), as revised, requires compliance with ARARs during, as well as at completion of, on-site remedial actions.
- o CERCLA defines on-site as “the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.” (40 *CFR* 300.5) Noncontiguous facilities also may be viewed as on-site based on a case-by-case analysis of whether facilities are related by threat posed or geography [55 FR 8690, March 8, 1990].
- o "Applicable requirements" mean those cleanup standards, standards of control, or other substantive environmental protection requirements, criteria, or limitations *promulgated* under Federal environmental or State environmental or facility siting law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site." [Section 300.5 of the NCP, 55 FR at 8814, March 8, 1990].
- o *Location-specific ARARs* are restrictions on the concentration of hazardous substances or the conduct of activities in environmentally sensitive areas. An example of a location-specific restriction on the concentration of hazardous substances is the RCRA land disposal restrictions (LDR) prohibiting hazardous waste placement into or onto the land (e.g., landfills, salt domes) until waste-specific treatment standards are met.
- o “Only those State standards that are promulgated, are identified by the State in a timely manner, and are *more stringent* than federal requirements may be applicable or relevant and appropriate.” (emphasis added) [40 *CFR* 300.400(g)(4)].

Prepared by DOE, EH-413

Working Draft: August 25, 1998, 10:47 am

State Authority under RCRA

- o Requirements imposed under the Hazardous and Solid Waste Amendments of 1984 (HSWA):
 - *More Stringent Regulations:*
 - In general, new requirements take effect immediately in all States.
 - EPA implements newly promulgated HSWA requirements in all States until individual States adopt and receive authorization for the new requirements. States are not authorized to implement new standards in lieu of EPA until the State program modification is approved by EPA.
 - Authorized States are required to modify their programs only when EPA promulgates Federal requirements that are more stringent or broader in scope than existing Federal requirements.
 - *Less Stringent Regulations:* Although EPA encourages them to do so, States can, but are not required to, adopt Federal regulations that are considered less stringent; less stringent regulations do not take effect in authorized States until those States adopt them and are authorized to implement them.
 - States can impose standards more stringent than those in the Federal program.
 - States with existing LDR treatment standards can continue to administer and require compliance with their standards as a matter of State law.

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- o *Less Stringent Regulations:* Alternative LDR treatment standards for contaminated soil, which are viewed as *less stringent* than existing waste-specific treatment standards and, therefore, do not apply in States with LDR authorization for waste-specific treatment standards until the State has incorporated them into State law.
- o *More Stringent Regulations:* New LDR treatment standards for most of the TC metals (i.e., D004-D011) except for arsenic and selenium nonwastewaters, including the requirement that underlying hazardous constituents (UHCs) "reasonably expected to be present" in a TC metal waste be treated to meet 40 CFR 268.48 UTS.

Issues Requiring EPA Clarification / Questions:

- o Although alternative treatment standards for contaminated soil clearly took effect and could be used as ARARs in unauthorized States on or after May 26, 1998, in States that *plan* to adopt all of the Phase IV provisions, including the alternative

LDR treatment standards for contaminated soil, can remedial project managers at CERCLA sites consider using the alternative standards before the date upon which the Phase IV provisions are incorporated into the State code?

- o Must States that have adopted (i.e., codified into their State regulations) the Phase IV provisions, including the alternative LDR treatment standards for contaminated soil, receive approval (i.e., authorization) from EPA before they may allow on-site CERCLA response actions to use of the less-stringent standards?

MEMORANDUM

SUBJECT: Phase IV Land Disposal Restrictions Rule – Clarification of Effective Dates

FROM: Elizabeth A. Cotsworth, Acting Director
Office of Solid Waste

TO: RCRA Senior Policy Advisors, Regions I - X

The Phase IV Land Disposal Restrictions (LDR) final rule, published on May 26, 1998, establishes or revises treatment standards for metal and mineral processing wastes, amends the definition of solid waste for mineral processing wastes, and promulgates treatment standards for contaminated soil subject to the LDRs (63 FR 28556). My office has received a number of questions regarding the dates by which the individual provisions in the rule become effective. The purpose of this memo is to clarify the effective dates for the major provisions of the Phase IV rule. It is supplemental to the final rule preamble at page 28556 (“Effective Dates”) and pages 28634-5 (“State Authority”). I invite you to share this information with enforcement personnel, members of the public, and other interested parties.

The Phase IV rule presents an unusually complex set of effective date considerations because portions of the rule are promulgated under the authority of the Hazardous and Solid Waste Amendments of 1984 (HSWA) and some are not, and because some of the provisions of the rule are more stringent than current Federal regulations and some are not. To assist the public’s understanding of how these factors come into play and to be precise about when various parts of the Phase IV final rule become effective, I have attached four items to this memorandum. These attachments are:

- (1) A matrix showing the various types of wastes covered by the Phase IV rule and when and how they are regulated in States at different stages of RCRA authorization;
- (2) A matrix showing the different parts of the Phase IV rule and when and how they are effective in States at different stages of RCRA authorization; and
- (3) A general discussion of considerations that come into play in determining the effective

dates of RCRA rules. These involve not only the normal practice of EPA regarding the effective dates of regulations we adopt, but also consideration of whether: (1) a regulation is promulgated under the HSWA; (2) a regulation is new or modifies previous regulations that may or may not have already been adopted by a State and for which the State has (or has not yet) been authorized; and (3) a regulation is more or less stringent than any preceding regulation it may modify; and

- (4) A copy of an OSW memorandum dated December 19, 1994 explaining one circumstance in which EPA will not override authorized State treatment standards.

Please note that the first two documents contain essentially the same information, but are organized quite differently so that audiences with different types of questions can use whichever document better suits their needs. The third attachment is a more general background discussion, with some examples from the Phase IV rule used to illustrate various scenarios. Attachment Four is referenced in the other attachments.

On a related, but separate matter, I would like to highlight a separate point of confusion in the “effective dates” section of the Phase IV rule at 63 FR 28556. The word “except” was inadvertently omitted in the first line. EPA plans to correct this point of confusion in an upcoming Federal Register technical correction to the Phase IV rule. For your information, the section should have read as follows, with the missing word shown in italics:

“EFFECTIVE DATES: This final rule is effective on August 24, 1998 *except*:

- Prohibition on underground injection of certain wastes at 40 CFR Section 148.18, which is effective May 26, 2000;
- Definition of solid waste provisions at Section 261.2, 261.4(a)(15), and 261.4(b), which are effective November 27, 1998;
- Exclusion of recycled wood preserving wastewaters at Section 261.4(a)(9), which is effective May 26, 1998;
- Prohibition on land disposal of wastes from elemental phosphorus processing and on mixed radioactive wastes at Section 268.34(b), which are effective May 26, 2000; and
- Land Disposal Restrictions treatment standards at Section 268.49 for soil contaminated with previously prohibited wastes, which are effective on May 26, 1998.”

I hope this information will be useful in implementing the Phase IV Rule. If you have questions, please direct them to Sue Slotnick, in the Waste Treatment Branch of the Office of Solid Waste, at (703) 308-8462.

Attachments

ATTACHMENT ONE

Table A: Waste Treatment Requirements by Waste Type and State Authorization Status

DEFINITIONS: 1. “Fed” means the federal Part 268 requirements in the Phase IV final rule apply, including the §268.48 universal treatment standards (UTS) for underlying hazardous constituents (UHCs).

2. “State” means that there is an existing authorized State treatment standard and that the existing State standard applies until the State adopts the Phase IV final rule. (Note: for wastes for which there is no existing State standard, “Fed” applies.)

[illegible]

ATTACHMENT ONE

Table B: Applicability of Soil Treatment Standards

DEFINITIONS: 1. “Fed” means the soil standards in Phase IV are applicable unless the State has a more stringent treatment standard in which case the State standard applies.
2. “State” means an existing State treatment standard applies.

SOIL CONTAMINATED WITH: <u>1/</u>	State not authorized for LDRs	State authorized for LDRs up to but not including the Third Third rule	State authorized for Third Third rule	State authorized for 1993 rule for ignitable and corrosive wastes	State authorized for Phase II	State authorized for Phase III	Material is a haz waste in State’s authorized program	Material is <u>not</u> a haz waste in State’s authorized program
D004 - D011	Fed	Fed	State	State	State	State	N/A	N/A
Characteristic mineral processing wastes	Fed	Fed	Fed	Fed	Fed	Fed	Fed	N/A
D001, D002	Fed	Fed	Fed	State	State	State	N/A	N/A
D003	Fed	Fed	Fed	Fed	Fed	State	N/A	N/A
D012 to D043	Fed	Fed	Fed	Fed	State	State	N/A	N/A
Listed wastes	Fed	State	State	State	State	State	N/A	N/A

1/ For all characteristic and listed wastes below, the treatment standards apply to all hazardous constituents subject to treatment, including underlying hazardous constituents. See §268.49 (d).

ATTACHMENT TWO

Table of Effective Dates of Major Phase IV Provisions

<i>Description of provision</i>	<i>Effective date</i>	<i>Effect of State authorization status on effective date</i>	<i>40 CFR citation in Phase IV rule</i>
Land Disposal Restrictions for wastes, soil, and debris exhibiting the Toxicity Characteristic (TC) for metals. This includes both the characteristic metal wastes regulated in the Third Third LDR rule and those not regulated in that rule because they passed the Extraction Procedure (EP) test then in effect. The Phase IV LDRs state that wastes exhibiting the Toxicity Characteristic (TC) for metals are prohibited from land disposal unless they meet LDR treatment standards, and that all underlying hazardous constituents (UHCs) in the waste must meet the new Universal Treatment Standards (UTS).	August 24, 1998	<p>These LDR requirements are HSWA regulations that are more stringent than previous federal requirements, and therefore took effect in all States, regardless of authorization status, as of 90 days after publication of the Phase IV final rule. Even in States authorized for the Phase II LDR rule and thus with authorized UTS for metal constituents, the new concentration levels for metals in the Phase IV rule apply to TC metal and characteristic mineral processing wastes because these wastes have never had UHC requirements before.</p> <p>[Note: the new Phase IV concentration levels for metal constituents will also apply to TC metal wastes <i>without</i> underlying hazardous constituents, i.e., to the key metal that makes the waste characteristic. This is true even in States that are authorized for the old (Third Third) treatment standards for EP/TC metal wastes. The reason is that the Phase IV LDRs require meeting UTS standards different than the metal characteristic level.]</p> <p>[For detail on the effect of State authorization on the effective date for soil contaminated with TC metal wastes and mineral processing wastes, see the section concerning soil standards below.]</p>	Prohibition at §268.34; requirement to treat UHCs at §268.40 (e); and treatment standards at §§268.40, 268.48, and 268.49.

ATTACHMENT TWO

Table of Effective Dates of Major Phase IV Provisions

<i>Description of provision</i>	<i>Effective date</i>	<i>Effect of State authorization status on effective date</i>	<i>40 CFR citation in Phase IV rule</i>
Land Disposal Restrictions for Characteristic mineral processing wastes, soil, and debris (including manufactured gas plant waste).	August 24, 1998	The LDRs are effective in all States, provided the material is a solid waste and a hazardous waste under a State's authorized program. Phase IV treatment standards apply to any characteristic mineral processing wastes, whether ignitable, corrosive, reactive, organic TC, or metal TC. These are newly prohibited in this rule.	Prohibition at §268.34; requirement to treat UHCs at §268.40 (e); and treatment standards at §§268.40, 268.48, and 268.49.

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<i>Description of provision</i>	<i>Effective date</i>	<i>Effect of State authorization status on effective date</i>	<i>40 CFR citation in Phase IV rule</i>
Modified UTS for all metal hazardous constituents in listed and in non-Phase IV characteristic wastes. (Non-Phase IV characteristic wastes are ignitable, corrosive, reactive, and TC wastes <i>except</i> the TC metal and characteristic mineral processing wastes.)	August 24, 1998 in unauthorized States. See next column for authorized States.	<p>The effective date depends not only on the State's authorization status, but on the particular waste.</p> <p>1. In States that are authorized for LDR rules promulgated prior to the Phase II rule (e.g. the Solvents and Dioxins rule, or the Third Third rule) but are not authorized for the Phase II rule, treatment standards are in effect as follows:</p> <ul style="list-style-type: none"> • For <i>listed</i> wastes regulated by a federal rule for which the State is authorized, the existing authorized treatment standards, including the particular constituent concentration levels appearing in the State rules, remain in effect until the State is authorized for the Phase II rule. This is consistent with the December 19, 1994 memo (Attachment Four) which states: "the States authorized for some or all of the LDRs will continue to implement those portions of the program for which they are authorized." • For <i>listed</i> wastes regulated by a federal rule but not under an authorized State rule and which contain metal constituents (e.g. newly-listed wastes such as K088), the new Phase IV UTS concentration levels apply. This is because there is no authorized State-established treatment standard for these wastes. • For <i>non-Phase IV characteristic</i> wastes containing metal UHCs, the UTS promulgated in the Phase IV rule at 40 CFR 268.48 apply to the UHCs because the State has no authorized requirement to treat UHCs. 	§§268.40 and 268.48

ATTACHMENT TWO

Table of Effective Dates of Major Phase IV Provisions

<i>Description of provision</i>	<i>Effective date</i>	<i>Effect of State authorization status on effective date</i>	<i>40 CFR citation in Phase IV rule</i>
Modified UTS, contd.		<p>2. In States that are authorized through the Phase II or Phase III LDR rules and thus have authorized treatment standards for some or all <i>non-Phase IV characteristic</i> wastes, the existing State treatment standards remain in effect for such wastes until the States are authorized for Phase IV. This is true for all <i>listed</i> and <i>characteristic</i> wastes for which the State has an authorized treatment standard, and is consistent with the December 1994 memorandum (Attachment Four). One result is that the numerical UTS level for a metal constituent in a non-Phase IV waste (e.g., D018) may differ from the level for that same constituent in a Phase IV waste (e.g., D008) until Phase IV authorization occurs.</p> <p>[Note: if a waste has multiple waste codes, the more stringent standard applies. 40 CFR 268.40 (c).]</p>	
Conditional exclusion for secondary materials from mineral processing, and other changes to the definition of solid waste for mineral processing materials.	<p>November 27, 1998 in unauthorized States.</p> <p>See next column for authorized States.</p>	Since the definition of solid waste is a non-HSWA provision, the Phase IV changes are effective November 27, 1998 in unauthorized States. In authorized States, the Phase IV changes are not effective until the States adopt and become authorized for them. States are required to become authorized for changes to the status of characteristic by-products and sludges at §261.2 because those changes are more stringent than existing federal regulations. States are not required to become authorized for the change to the status of spent materials at §261.2, because that provision is less stringent.	§261.2, §261.4

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Table of Effective Dates of Major Phase IV Provisions

<i>Description of provision</i>	<i>Effective date</i>	<i>Effect of State authorization status on effective date</i>	<i>40 CFR citation in Phase IV rule</i>
Wood preserving wastewater exclusion.	May 26, 1998 in unauthorized States. See next column for authorized States.	Since the provision is deregulatory, EPA used a good cause finding to set a shorter date than the six months usually allowed for compliance. In unauthorized States, the exclusion was effective upon publication of the Phase IV rule. In States that are authorized for the definition of solid waste (50 FR 614, January 4, 1985), the exclusion is not effective until the State adopts it and is authorized for it. However, States are not required to become authorized for the exclusion because it is a less stringent requirement than existing regulations.	§261.4

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Table of Effective Dates of Major Phase IV Provisions

<i>Description of provision</i>	<i>Effective date</i>	<i>Effect of State authorization status on effective date</i>	<i>40 CFR citation in Phase IV rule</i>
Soil treatment standards	<p>Prior to adoption by States of the Phase IV soil treatment standards, other LDR standards (including Phase IV) apply. See above sections in this table.</p> <p>The soil treatment standards are effective only for soil:</p> <p>(1) in States not authorized for the LDR program; and</p> <p>(2) in all States if the soil fails the TCLP test for one or more metal constituent (TC metal soil)</p> <p>(3) in all States if the soil is contaminated with a characteristic mineral processing waste</p> <p>See next column.</p>	<p>Because the soil treatment standards are less stringent than existing Federal requirements, they are generally not available in authorized States unless and until the States adopt the standards. To the extent they do not conflict with any independent State land disposal restrictions or treatment requirements, the soil treatment standards are also available in States in which EPA is responsible for implementation of the LDR program as follows:</p> <p>(1) <u>States in which EPA is responsible for implementing the land disposal restriction program in its entirety.</u> In these States, there are no authorized State LDR requirements against which to assess the relative stringency of the soil treatment standards. Therefore, as new HSWA requirements in a non-authorized State, the soil treatment standards are effective and implemented by EPA unless and until the State adopts and becomes authorized for the standards.</p> <p>(2) <u>States that are authorized to implement the LDR program but in which EPA is responsible for implementation of the land disposal restriction treatment standards for certain wastes.</u> Soil treatment standards are available for soil contaminated by the wastes for which EPA is responsible for implementation of land disposal restriction treatment standards, provided the State does not have a treatment standard in State law that is more stringent than the soil treatment standards. For example, for TC metal wastes, EPA is responsible for implementing the LDR treatment standards. Therefore, for TC metal soil, the soil treatment standards are available. However, many States have treatment standards for metals that are more stringent than the soil treatment standards; in this case the more stringent State treatment standards would control in lieu of the federal soil standards.</p>	§268.49

ATTACHMENT TWO

Table of Effective Dates of Major Phase IV Provisions

<i>Description of provision</i>	<i>Effective date</i>	<i>Effect of State authorization status on effective date</i>	<i>40 CFR citation in Phase IV rule</i>
Soil standards, contd.		<p>For example, the soil treatment standard for lead is 90% reduction or 7.5 ppm (whichever is less stringent), but many States have a treatment standard for lead of 5 ppm (which they adopted from the LDR Third Third rule). In this case, the more stringent State treatment standard of 5 ppm would apply to TC characteristic levels of lead in contaminated soil unless and until the State adopted the soil treatment standards. Note, soil contaminated with TC metal wastes must meet LDRs for underlying hazardous constituents in all States.</p> <p>[Note: if a State becomes authorized only for Phase II and not yet for Phase IV, the soil standards for D012 -D043 in Phase IV (i.e., 10 X UTS or 90% reduction) will be superseded at the time of authorization by the Phase II treatment standards, which provide no special standards for contaminated soils.]</p>	

ATTACHMENT THREE: Considerations Bearing Upon the Effective Dates of RCRA Rules

A number of competing considerations come into play in determining the effective dates of RCRA rules. These involve not only the normal practice of EPA regarding the effective dates of regulations we adopt, but also consideration of whether: (1) the regulation is promulgated under the Hazardous and Solid Waste Amendments of 1984 (HSWA); (2) the regulation is new or modifies previous regulations that may or may not have already been adopted by a State and for which the State has (or has not yet) been authorized; and (3) the regulation is more or less stringent than any preceding regulation it may modify. The discussion below should provide you with the general framework for how these factors apply to various scenarios, including those presented in the Phase IV final rule, 63 FR 28556 (May 26, 1998). More specific guidance on the effective dates of major Phase IV requirements is provided in Attachments One and Two.

Effective dates of RCRA regulations in general

RCRA rules normally take effect six months after they are published, as provided in RCRA section 3010 (b). However, under that provision, EPA may establish a shorter effective date where there is good cause to do so. In addition, other statutory provisions -- among them, the LDR provisions -- mandate particular effective dates.

Effective dates of RCRA regulations in unauthorized States

In the small number of States and territories that are not authorized for any part of the RCRA program, RCRA regulations take effect on the effective date stated in the rule, and are implemented exclusively by EPA. This is true for both non-HSWA and HSWA regulations and for EPA modifications to those regulations, regardless of whether the modification makes the original regulation more or less stringent. A regulation in this category goes into effect on the date specified in the final rule.

More commonly, a State or territory will be authorized for some parts of the RCRA program, but not others. These States are typically referred to as “base-program authorized.” In a base-program authorized State, the effective dates of new RCRA regulations are governed primarily by whether the regulation is promulgated under a HSWA or non-HSWA statutory provisions, as discussed below.

Authorized States implement the authorized State RCRA program in lieu of the Federal RCRA program. However, sometimes a base-program authorized State or territory may have adopted a new RCRA regulation but not yet received authorization to implement the regulation. This means the State would implement the State program, including any new RCRA regulations it may have adopted, and, at the same time, EPA would implement any parts of the Federal program for which the State is not yet authorized, subject to two main factors: (1) whether a regulation is promulgated under HSWA or under non-HSWA statutory provisions; and (2) whether a new regulation is more or less stringent than existing regulations. These two factors are discussed below. Generally speaking, however, under RCRA EPA does not preempt more stringent State

requirements so the more stringent of the State or Federal program applies. Thus, modifications to Federal requirements that make the requirements less stringent, such as the soil treatment standards, are not effective in any State that has either adopted or become authorized for more stringent treatment standards (such as the treatment standards in the Third Third LDR rule) unless and until the State adopts the modified regulations.

Effective dates of non-HSWA regulations in authorized States

Non-HSWA regulations are those that implement portions of RCRA enacted prior to the 1984 Hazardous and Solid Waste Amendments (HSWA). If a State is authorized for the RCRA program and EPA promulgates a *new, non-HSWA requirement*, the requirement does *not* become effective in the authorized State at the time specified in the promulgated regulation. Rather, the authorized State must adopt the regulation and receive EPA authorization for the new, non-HSWA regulation before it becomes effective in that State. (RCRA section 3006(b) and 40 CFR 271.3 (b).) Similarly, if a State is already authorized for a non-HSWA regulation and EPA *modifies* the federal counterpart of that regulation, the modification is not effective in that State until the State adopts and becomes authorized for it. An example of a modification to a non-HSWA requirement is the Phase IV change to the definition of solid waste for mineral processing wastes.

States are required to adopt and become authorized for modifications to non-HSWA requirements that make the regulations more stringent. Therefore, all modifications that make the federal program *more stringent* will eventually become effective in all States. However, if a modification makes the federal regulation *less stringent* than the existing authorized State regulation, the State is not required to change its program. (RCRA section 3009) An example of a less stringent modification to a non-HSWA requirement is the new Phase IV exclusion from RCRA for recycled wastewaters from wood preserving.

Effective dates of HSWA regulations in authorized States

In contrast to the case of non-HSWA regulations, when EPA promulgates a *new HSWA requirement* (such as new LDR treatment standards for a waste that had none before), the new HSWA requirement takes effect in all States on the effective date stated in the rule, and is implemented exclusively by EPA until States become authorized for it. (RCRA section 3006 (g)). Also in contrast to the case of non-HSWA regulations, when EPA *modifies* a HSWA regulation to make it *more stringent*, the modification goes into effect on the effective date stated in the rule (and under EPA implementation) *regardless of the State's authorized status or program*. An example is the part of the Phase IV rule requiring that underlying hazardous constituents meet LDRs in a characteristic waste for which a treatment standard already exists. But, as with modifications to non-HSWA regulations, if the HSWA modification is *less stringent* than a State's authorized program, an authorized State may choose not to adopt the federal change and EPA will not implement the less stringent federal regulation in that State.

Effective dates of LDR regulations

As noted above, the RCRA statute provides for particular effective dates for some types of EPA regulations. One such provision is RCRA section 3004 (h) (1), which states that Land Disposal Restriction prohibitions and treatment standards ordinarily are to take effect immediately, or at the first time (not to exceed two years) that treatment capacity is available. EPA has typically made LDR prohibitions and treatment standards effective within 90 days of promulgation, the 90 days serving as a period during which administrative arrangements for treatment are finalized, i.e., the period it takes for treatment capacity to become available as a practical matter.

Special case of effective dates when EPA changes LDR treatment standard levels --the EPA Guidance Memorandum of December 19, 1994

Shortly after EPA promulgated the Universal Treatment Standards (UTS) in the Phase II LDR rule, the Agency issued a guidance memorandum dated December 19, 1994 stating that when EPA changes only numerical treatment standard levels, the changes can be regarded as neither more nor less stringent for State authorization purposes (Attachment 4). For States authorized for the Phase II rule, the memorandum indicates that an existing authorized State treatment standard will continue to apply unless and until a State chooses to adopt the new federal LDR numerical standard . (Of course, the 1994 guidance memorandum has no application in unauthorized States.)

Application of the December 1994 Guidance Memorandum to the Phase IV final rule

The situation just described, in which EPA changes the numerical treatment standard levels for wastes with existing State-authorized treatment standards, is in contrast to the case in which EPA establishes, for a class of wastes, an entire set of new Land Disposal Restrictions that goes beyond mere changes in required constituent concentration levels. The Phase IV rule presents both situations and therefore some additional explanation is needed for how the approach in the 1994 memorandum applies to Phase IV.

For the TC metal and characteristic mineral processing wastes ("Phase IV wastes"), EPA promulgated a new set of LDRs including new prohibitions for some of the wastes (a subset of the TC metal wastes were already prohibited in the Third Third LDR rule), a new requirement that underlying hazardous constituents meet UTS for all wastes in the set, and revised UTS for metal hazardous constituents. EPA views these regulations, which are essentially inseparable, as an entire set of new and more stringent LDRs for the purposes of determining State authorization requirements and effective dates. Therefore, this set of more stringent, HSWA LDR regulations apply in all States 90 days after publication of Phase IV and are implemented by EPA until States become authorized. The other situation, the one in which only the numerical levels change, occurs in Phase IV as well because EPA modified the UTS for metal constituents in all wastes, based on new data. Some of those wastes, of course, have existing authorized treatment standards, for example, D018 through D043 organic TC wastes with underlying hazardous metal constituents in States authorized for the Phase II LDR rule, plus metal constituents in listed wastes. Therefore, under the approach taken in the 1994 memorandum, the Phase IV

modifications to UTS for metal constituents in “non-Phase IV wastes” are considered neither more nor less stringent for State authorization purposes and are not effective until a State adopts and is authorized for them. The affected “non-Phase IV wastes” are listed and characteristic metal-bearing wastes, excluding TC metal and characteristic mineral processing wastes, that have numerical treatment standards.

Phase IV soil treatment standards

Like all LDR treatment standards, the soil treatment standards are promulgated pursuant to HSWA. Therefore, the rules for effective dates for HSWA regulations apply but have limited impact because the soil treatment standards are generally less stringent than the treatment standards for pure hazardous wastes, which currently apply to contaminated soil. Because the soil treatment standards are generally less stringent than current Federal requirements, they will not go into effect in authorized States until the States adopt and become authorized for them -- even though the soil treatment standards are promulgated pursuant to HSWA.

More specifically, if a State is authorized to implement the LDR treatment standards for any given waste or constituent, and that waste or constituent is contained in contaminated soil that is subject to LDRs, the more stringent treatment standard for the pure waste or constituent continues to apply to contaminated soil until the State adopts and becomes authorized for the soil treatment standards. Similarly, if a State has adopted, under State law, an LDR treatment standard for any given waste or constituent but has not yet received authorization for the requirement, and that waste or constituent is contained in contaminated soil that is subject to LDRs, the more stringent State requirement continues to apply until the State adopts, under State law, the soil treatment standards. This occurs because, under RCRA, EPA does not preempt more stringent State requirements, whether or not those State requirements are authorized.

Despite this convention, if a State were, through implementation of State waiver authorities or other State laws, to allow compliance with the soil treatment standards in advance of adoption or authorization, EPA would not generally consider such application of the soil treatment standards a concern for purposes of enforcement or State authorization. Thus, by using State law to waive authorized or non-authorized State requirements, a State can allow immediate implementation of the soil treatment standards without jeopardizing their RCRA authorization. (This is similar to the approach the Agency took in promulgation of the corrective action management unit rule. See 58 FR 8677, February 16, 1993.)

ATTACHMENT FOUR

December 19, 1994

MEMORANDUM

SUBJECT: Universal Treatment Standards Authorization
Implications

FROM: Michael Shapiro, Director /S/
Office of Solid Waste (5301)

TO: Waste Management Division Directions
Regions I - X

The purpose of this memorandum is to clarify State implementation of the Universal Treatment Standards (UTS) promulgated as part of the Phase II Land Disposal Restrictions (LDR) rule (September 19, 1994, 59 FR 47980).

As described in the Phase II LDR final rule, UTS will simplify the LDR program by establishing one set of concentration based treatment standards for each hazardous constituent, regardless of the restricted waste the constituent is a component of. This is in contrast to the previous system where treatment levels for a particular constituent could vary between different restricted wastes. EPA believes that the simplification provided by the UTS will greatly assist compliance with and enforcement of the LDR program.

The UTS are promulgated pursuant to HSWA authority, and traditionally more stringent HSWA standards are immediately effective in authorized States. In most cases, the UTS limits are the same as the previous treatment standards, while about forty percent of the standards either went up or down. In reviewing the treatment standards, we concluded that a numerical comparison exaggerates the degree of change. In particular, the differences in numerical values for many of the organic constituents actually reflect adjustments in the limits of analytical detection. Thus, actual treatment will likely continue to destroy or remove organic to nondetectable levels. Even in those cases where the numerical limits have actually changed, the technology basis has not. Therefore, the changes to the treatment standards should not be viewed as more or less stringent.

As a result, EPA has decided not to implement the UTS separately for those wastes for which the state has received LDR

authorization. Under this approach, the States authorized for some or all of the LDRs will continue to implement those portions of the program for which they are authorized, whether or not they have adopted the new standards, and, in EPA's view, the regulated industry will be subject to the state standards, regardless of whether they differ from the new UTS. EPA strongly urges states to implement the new UTS standards as quickly as possible, both for simplicity of implementation and national consistency. But, state law (as interpreted by the state) would determine which standards applied. This approach would avoid the dual regulatory problem which would occur during the time before new HSWA requirements are adopted and authorized in the State.

EPA proposed a similar approach to state adoption of HSWA rules in the Subpart S rule (55 FR 30860), and did not receive any negative comments. EPA believes that Congress did not intend for the authorized State program's authority to return, in part, to EPA every time EPA promulgates modifications to HSWA program requirements. At the same time, however, this memo is not relinquishing EPA's statutory responsibility to implement significant new HSWA rules in States as soon as the rules become effective. Thus, this new approach will be reserved only for areas of the hazardous waste program already authorized and regulated by the state, not new areas of HSWA regulations. For example, the September 19, 1994 Phase II rule established treatment standards for several newly listed wastes; these new requirements are immediately effective in all the States and will be enforced by EPA.

The authorization approach discussed in this memo will be available only when changes to the treatment standard occur to existing HSWA programs in States authorized for those programs. As we develop rules in the future, we will address issues of applicability of the new approach in the preamble.

EPA has a strong interest in uniformity and consistency of regulations and believes that the improvements in the UTS meet these objectives. Thus, please encourage the States in your Region to adopt and apply for authorization of the Phase II rule. States that are currently authorized for portions of the LDRs may submit an abbreviated authorization revision application to the Region for the UTS. This application should consist of a letter from the State to the appropriate Regional office, certifying that it has adopted treatment standards equivalent to the UTS for those restricted wastes which are a part of the State's authorized LDR program. The State should also submit a copy of its final rule or other authorizing authority. A revised Program Description, Memorandum of Agreement and Attorney General's statement is not necessary because the only change the State would be making is to the treatment standards it is already authorized for. We expect the Regions will be able to act

quickly on this authorization submittal because the changes are minor, thus simplifying the review.

If you have any questions or wish to discuss this memorandum in further detail please contact Virginia Phillips at (703) 308-8761.